

What is claimed is:

1. An enclosure for containing at least one coolant compressor for a housed cryogenic apparatus, comprising:
  - a cabinet coupled to the apparatus housing;
  - an air conditioner affixed to said cabinet; and
  - a plurality of coolant line guides positioned within said cabinet.
2. The enclosure of claim 1, further comprising at least one piping support structure upon which said coolant line guides are mounted.
3. The enclosure of claim 1, wherein said coolant line guides further comprise at least one pipeline divider.
4. The enclosure of claim 3, wherein said pipeline dividers allow motion of said coolant lines while preventing said coolant lines from making contact with one another over the range of temperatures to which said cabinet is constrained by operation of said air conditioner.
5. The enclosure of claim 1, further comprising a coolant line guide enclosure enclosing at least in part a coolant line pathway from the coolant compressors to at least one element of cryogenic apparatus embedded in part in the cryogenic apparatus housing.
6. The enclosure of claim 5, wherein the surface of said coolant line guide enclosure proximal to the housed cryogenic apparatus conforms generally to the profile of the proximal surface of the cryogenic apparatus housing.

7. The enclosure of claim 5, wherein said coolant line guide enclosure is insulated.
8. The enclosure of claim 5, wherein said coolant line guide enclosure provides support to and separates said coolant lines with respect to the internal structure of said coolant line guide enclosure.
9. The enclosure of claim 5, wherein said coolant line guide enclosure is mated to said cabinet by a flanged clearance hole.
10. The enclosure of claim 5, wherein said flanged clearance hole permits entry by said coolant lines to said coolant line guide enclosure and is sealed to said cabinet.
11. The enclosure of claim 5, wherein a coolant line exit from said coolant line guide enclosure at the end thereof distal to said cabinet comprises a multiplicity of individual close-fitted holes, each of which provides a stable, low-leakage passage for a single coolant line.
12. The enclosure of claim 5, wherein said coolant line guide enclosure entirely surrounds said coolant lines to an interface with the housed cryogenic apparatus.
13. The enclosure of claim 5, wherein said coolant line guide enclosure entirely surrounds said coolant lines and any element of said housed cryogenic apparatus not located within the housing of said housed cryogenic apparatus.

14. The enclosure of claim 1, further comprising an auxiliary ventilation system directing conditioned air to the region of said coolant line guide enclosure distal to said cabinet.

15. The enclosure of claim 1, further comprising at least one insulated door providing substantial closure of said cabinet when closed.

16. The enclosure of claim 1, further comprising a rack assembly supporting the coolant compressors in said cabinet.

17. The enclosure of claim 1, wherein said air conditioner removes heat from the air volume within said cabinet.

18. The enclosure of claim 1, wherein said air conditioner removes water vapor from the air volume within said cabinet.

19. The enclosure of claim 1, wherein said air conditioner adds heat to the air volume within said cabinet.

20. The enclosure of claim 1, wherein said air conditioner adds water vapor to the air volume within said cabinet.

21. An enclosure for containing at least one coolant compressor in support of a housed cryogenic apparatus, comprising:

means for mechanically supporting at least one coolant compressor adjacent to a side surface of the housed apparatus;

means for enclosing a thermally insulated volume surrounding said supporting means; and

means for removing heat from said enclosing means.

22. The enclosure of claim 21, further comprising means for controlling moisture concentration within said enclosing means.

23. The enclosure of claim 21, further comprising:

means for enclosing and guiding coolant lines within an insulated volume leading at least part way toward a housed cryogenic apparatus; and

means for positioning coolant lines from a coolant compressor within said enclosing means in order to prevent the coolant lines from making contact with each other and with surfaces other than those comprising said positioning means.

24. A method for providing a controlled environment for at least one coolant compressor in support of a housed cryogenic apparatus, comprising the steps of:

supporting the coolant compressor adjacent to a side surface of the cryogenic apparatus housing;

enclosing a thermally insulated volume including the coolant compressor;  
and

removing heat from the enclosing volume.

25. The environmental control method of claim 24, further comprising controlling moisture concentration within an enclosed volume.

26. The environmental control method of claim 24, further comprising:  
enclosing and guiding coolant lines within an insulated volume leading at

least part way toward the housed cryogenic apparatus; and

positioning coolant lines from a coolant compressor within an enclosed volume in order to prevent the coolant lines from making contact with each other and with other surfaces.